CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	**Musselshell Judith Rural Water Easement and Land Use License Proposals**
Proposed Implementation Date:	2023
Proponent:	Central Montana Regional Water Authority
Location:	Section 16, Township 9 North, Range 21 East – Water Pipeline Easement Section 16, Township 9 North, Range 19 East – Access Road Land Use License
County:	Golden Valley

I. TYPE AND PURPOSE OF ACTION

The Central Montana Regional Water Authority is proposing the installation of a rural water pipeline approximately 7115 feet in length running from the southeast corner to just south of the northwest corner in Section 16, T9N, R21E. The proposed easement would be 30 ft in width and would contain a total of 4.90 acres.

In addition, the Central Montana Regional Water Authority has requested an access route that would follow the path of two existing roads, one being a two-track road and one a more established private road, in the northeast corner of Section 16, T9N R19E. The proposed land use license would follow a total of 1800 feet of existing roads on Section 16..

The following is an excerpt from the Musselshell-Judith Rural Water System Phase 2 Construction Project Environmental Assessment (June 21, 2022) describing the purpose and need for action:

> *"The purpose of the MJRWS Phase 2 project is to provide safe and reliable drinking water to the City of Roundup, as well as approximately 80 rural users along the Phase 2 pipeline route.*
>
> *Each of the communities in the CMRWA region routinely struggles with providing its residents with safe and reliable drinking water. The Phase 2 project is the CMRWA's next step in resolving this problem by constructing this regional water system, specifically for the City of Roundup and rural users along the route between Judith Gap and Roundup – approximately 65 miles of potential service connections.*
>
> *As the population center of the Phase 2 portion of the MJRWS project, the City of Roundup's current water supply is a focus of the health and safety considerations of this phase. Roundup's water supply is groundwater drawn by two wells located on the south side of the Musselshell River. The wells are located within the same well house, and both draw water from a flooded void of an abandoned coal mine known as Republic Number 1. The mine is constructed in consolidated sandstone bedrock. The aquifer is recharged mostly by infiltration of precipitation and surface water in the Bull Mountains south of Roundup.*
>
> *The City of Roundup's water is so mineralized that it is nearly undrinkable. Almost all residents buy bottled water and/or use costly in-home reverse osmosis units. The multi-community survey completed as part of the Feasibility Study indicated that 69% of residents purchase bottled water within the regional water system area. In addition, residents are forced to operate water softeners because the water is so corrosive to appliances. Community members have also indicated that household appliances have shorter operating lives than expected due to the poor quality of the water. The City has investigated several alternative water sources in response to the poor water quality, but none of the sources discovered would be cost-effective to develop. The Phase 2 project will also connect approximately 80 rural users between the Ubet wellfield and Roundup. Many rural households have poor water quality or are forced to haul water due to the limited accessibility of groundwater in Wheatland, Golden Valley, and Musselshell counties."*

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

Department of Natural Resources and Conservation (DNRC) Northeastern Land Office
Central Montana Regional Water Authority - Proponent
Montana Sage Grouse Oversight Team (MSGOT)

Excerpt from *Section 1.5 Scoping/Public Involvement* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "CMRWA conducted public meetings and took public comment in 2010 during development of the 2014 EA. Additionally, the Phase 1 Design was reviewed and approved by the MTDEQ (MTDEQ, 2020), who advertised the review during their EA for 30 days to receive public comment. Public involvement for Phase 2 also included publishing a public notice in the Times Clarion, in Harlowton, MT on October 8, 2021. An addition public notice will be published in area newspapers in the last quarter of 2022. Resources and issues analyzed in the EA for Phase 2 of the project are based on regulatory requirements and environmental conditions that may be affected. No additional public outreach has been conducted specific to Phase 2 of the water line development, but the monthly CMRWA board meetings are open to the public."

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Excerpt from *Section 1.4 Permits, Licenses and Other Authorizations Required* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "The following permits and plans for the Phase 2 project will be submitted during the design phase:
> - Authorization under the General Permit for Stormwater Discharge Permit / Stormwater Pollution Prevention Plan (SWPPP, to be submitted by general contractor prior to construction)
> - Montana Department of Transportation / ROW Encroachment Permit
> - County ROW Encroachment Permit
> - Bureau of Land Management ROW grant
> - State Lands Easement
> - USACE, 404 Permit, Clean Water Act
> - Montana Natural Streambed and Land Preservation Act, Section310 Permit
> - County Weed Board Submission of a weed management plan
> - Railroad Crossing Easement
> - Montana DNRC
> - AD-1006 form for evaluation for the Farm Protection Policy Act (FPPA) as necessary
>
> Encroachment permits from Judith Gap, Wheatland, Golden Valley, and Musselshell Counties will be obtained for work within or near the county roads as part of the design"

3. ALTERNATIVES CONSIDERED:

Alternative A (No Action) – The DNRC does not grant the proposed easement and land use license (described above) to the Central Montana Regional Water Authority.

Alternative B (the Proposed action) – The DNRC recommends granting the proposed easement and land use license (described above) to the Central Montana Regional Water Authority.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The proposed access routes will follow already established roads and are not anticipated to have any ground disturbance.

The proposed pipeline route contains soils consist of silty clay loams to clay loams. The Web Soil Survey rating indicates that these soils vary from somewhat limited to very limited to shallow excavation. Once construction is finished, the affected area will be reseeded with native grasses to reduce erosion. Various pipelines in the area show that with post installation reclamation, these soils are capable of handling such an action.

Excerpt from *Section 3.2.1 General Land Use: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "...all disturbed areas not dedicated to structures and other hard infrastructure will be graded and the surface restored and reseeded....Ground disturbance for pipeline construction would be temporary and all disturbed surfaces would be graded and reseeded."

Excerpt from *Section 3.3.2 Soil: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "The installation of effective stormwater drainage systems would be completed early in the construction sequence and would be maintained after construction to minimize soil stability issues. Any grading activities performed would be performed during the warmer and drier time of the year to minimize possible undercutting and replacement of unstable soils. Disturbance areas would be kept to a minimum and displaced soil would be backfilled over the trench immediately after the pipeline section was installed; therefore, disturbed and exposed soil would be limited to smaller segments within the project area. Reclamation would occur as soon as possible upon completion of installation."

No significant adverse impacts to the soils are anticipated.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Neither the proposed easement or land use license cross any surface or groundwater resources on the State Trust Lands described above.

Excerpt from *Section 3.6.2 Water Resources: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "The proposed action would include HDD beneath all streams and their associated wetlands, other than the potential trenching sites marked on the wetland delineation maps in Appendix C. Wetland and stream boundaries from the 2021-2022 aquatic resources delineation were used to determine the extent of HDD at each water of the U.S. Any servicing equipment would be located at least 250 feet from the edge of the channel to ensure that staging of supplies and support vehicles would not impact riparian areas. Drilling methods would include bentonite or polymer-based slurry as drilling fluid, which, depending on soil types, may rise to surface soils

or soils in contact with surface water causing some minor turbidity impacts. These impacts would be minor and short-term as they would cease upon completion of drilling activities."

No significant adverse impacts to water quality, quantity, or distribution are anticipated.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Excerpt from *Section 3.9.2 Air Quality: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "The proposed action would result in a slight increase in air emissions as work vehicles, drill rigs, and heavy equipment work in the area. Emissions would occur over a single construction season and all equipment used and transport vehicles would meet emission control requirements. Emissions from this low level, short-term activity would be minimal and would not create a noticeable or measurable increase in pollutants. Air quality impacts would be negligible and short-term."

No significant adverse impacts to air quality are anticipated

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The proposed pipeline route is planned to avoid unstable areas. Once construction is finished, the affected area will be reseeded with native grasses to reduce erosion. Various pipelines in the area show that with post installation reclamation, these soils are capable of handling such an action.

Because the proposed access roads are planned on existing roads and two-tracks, no vegetation disturbance is anticipated with the granting of the access road land use license.

Excerpt from *Section 3.7.3 Biological Resources: Vegetation: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "Pipeline and storage tank construction and installation activities would remove vegetation along the pipeline route and storage tank footprint. As discussed in Section 5.4, sensitive plants such as sagebrush would be avoided whenever possible. Areas of native grassland disturbed by construction activities would be reseeded with an approved native seed mix. All disturbed areas would be reclaimed and reseeded as soon as possible.
>
> Per Section 5.4, a weed control plan would also be developed and submitted to Musselshell, Golden Valley, Judith Basin, and Wheatland County weed districts prior to disturbance activities. These mitigation measures would significantly decrease the potential for new weed infestation associated with the proposed activities."

No significant adverse impacts to vegetation cover are anticipated.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Local wildlife may be displaced during construction of the pipeline for a very short period. Once construction has finished, the area will be available for use by local wildlife once again. The proposed improvements, once installed, are not anticipated to significantly impact their habitat or movement throughout the tract.

No significant adverse impacts to terrestrial, avian, and aquatic life and habitats are anticipated.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

The Species of Concern Report from the Montana Natural Heritage Program indicated 4 species of concern that may occur within a mile of Section 16, T9N R21E. These species are listed below:

Field Guide	ELCODE	Species Group	Common Name	Scientific Name
Field Guide	AMAFB06010	Mammals	Black-tailed Prairie Dog	Cynomys ludovicianus
Field Guide	ABNLC12010	Birds	Greater Sage-Grouse	Centrocercus urophasianus
Field Guide	ABNNB03100	Birds	Mountain Plover	Charadrius montanus
Field Guide	ABPBXA6010	Birds	Thick-billed Longspur	Rhynchophanes mccownii

The Species of Concern Report from the Montana Natural Heritage Program indicated 3 species of concern that may occur within a mile of Section 16, T9N R19E. These species are listed below:

Field Guide	ELCODE	Species Group	Common Name	Scientific Name
Field Guide	ABPAV08010	Birds	Clark's Nutcracker	Nucifraga columbiana
Field Guide	ABNLC12010	Birds	Greater Sage-Grouse	Centrocercus urophasianus
Field Guide	ABNNB03100	Birds	Mountain Plover	Charadrius montanus

Local wildlife may be displaced during construction for a very short period. Once construction has finished, the area will be available for use by local wildlife once again.

The proposed easement and land use license are located within Core Sage Grouse Habitat. The Montana Sage Grouse Oversight Team (MSGOT) was consulted regarding the proposed project. They replied with the following recommendations:

- Reclamation should re-establish native grasses, forbs, and/or shrubs during interim and final reclamation. The goal of reclamation is to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community or desired ecological condition to the benefit of sage grouse and replace or enhance sage grouse habitat to the degree that environmental conditions allow.
- Weed management is required within Core Area Habitat for sage grouse. Reclamation of disturbed areas must include control of noxious weeds and invasive plant species, including cheatgrass (Bromus tectorum) and Japanese brome (Bromus japonicas).
- Implementation of the Mitigation Plan is binding, and the signed Program letter and Mitigation Plan package (See attached) shall be attached to any permit the State issues. It is the Program's and MSGOTS's expectation that the Mitigation Plan will be an integral part of any associated Project's permits.

The Central Montana Water Authority has voluntarily committed to the proposed Mitigation Plan provided by MSGOT, including compensatory mitigation. The proponent plans to reclaim and reseed all disturbed areas with a native seed mix recommended by the local DNRC office.

No significant adverse impacts to unique, endangered, fragile or limited environmental resources are anticipated.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

A Class III cultural resource inventory was conducted of the area of potential effect. Proposed developments will have No Effect to Antiquities as defined under the Montana State Antiquities Act. A formal report of findings has been prepared and is on file with the DNRC and the Montana State Historic Preservation Officer.

No significant adverse impacts are anticipated.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

Excerpt from Section 3.11.2 Noise: Proposed Action in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "Noise would be generated during pipeline construction by heavy equipment, vehicles, and HDD equipment. Heavy equipment typically used during pipeline construction and their associated sound levels are summarized in Table 10. Construction schedules are anticipated to be on a 5 day per week schedule, generally occurring between 7 am and 6 pm.

Table 10. Heavy Equipment Sound Levels		
Equipment Type	Low Range dBA	High Range dBA
Bulldozer	87	110
Diesel Truck	84	114
Front-End Loader	82	102
Tractor	76	102
Excavator	80	102

(Berger, et al., 2016)

> Expected sound levels during construction would occasionally be greater than the EPA environmental noise guideline of 70dBA, however, not all pieces of equipment would be running simultaneously or continuously. Additionally, windows of nearby buildings and residences can be closed, substantially reducing the sound level.
>
> It is estimated that approximately 20,000 feet of the pipeline trenching coming into and through Roundup will require ripping/heavy ripping which can be completed at a rate of 400 feet per day depending on the hardness of the rock and the specific equipment used (USBR, 2014). At this rate construction within the vicinity of any residential homes at the north edge of the Pine Ridge Golf Club or near the intersection of 4th St and 15th Ave would last only a few days as only a portion of the total ripping/heavy ripping will be required near these areas, therefore any excessive construction noise would be short term. The majority of the ripping/heavy ripping will occur along the more rural portions of the route versus within or adjacent to the city of Roundup.
>
> The water pipeline itself would be underground and would not have any above ground noise emitting equipment during operations."

Once construction is complete, the proposed underground waterline is not anticipated to alter the aesthetics of the area.

The use of the access roads will be higher during the initial construction phase of this project, but once construction is complete, the use of the roads will be reduced and should not have an adverse impact on the local aesthetics of the area.

No significant adverse impacts are anticipated.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

No demands on limited resources are required for this project. No adverse impacts are anticipated.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

There are no other projects or plans being considered on the tracts listed on this EA.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

There are some human safety risks associated with operating equipment. The proponent and their employees accept these risks as acceptable occupational hazards.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

The proposed projects are not anticipated to alter the industrial, commercial, or agricultural use of the State-owned tracts.

The proposed rural water pipeline will increase the availability of good quality water to the local area.

No adverse impacts to agriculture, industrial, or commercial activities are anticipated.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

Excerpt from *Section 3.10.2 Socio-Economic Impact Assessment/Environmental Justice: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "The construction and reclamation of proposed action would employ up to 50 people for one to two construction seasons. This small, short-term increase in the labor force would not be considered significant."

No adverse impacts to the employment market are anticipated.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

The proposed project is anticipated to employ 50 people over the course of one to two construction seasons. Wages for the 50 employees would create income tax revenue for the State of Montana.

No additional tax revenue is anticipated. No adverse impacts to state tax base and tax revenue is anticipated.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Excerpt from *Section 3.10.2 Socio-Economic Impact Assessment/Environmental Justice: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "The construction and reclamation of proposed action would employ up to 50 people for one to two construction seasons. This small, short-term increase in the labor force would not be considered significant. It is unlikely that temporary construction workers would relocate their families, so impacts to public services are not anticipated. The project may result in a relatively small increase in demand for local goods and services; however, the increase would be negligible and short-term, due to the small size of the non-local workforce needed for the one construction season it would take to complete the proposed action. For the same reasons, the effects to infrastructure such as schools, hospitals, housing, and utilities would also be minimal, indicating that the project would have minimal adverse economic impacts in the region and may prove economically beneficial."

Excerpt from *Section 3.12.2 Transportation: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "As stated in Section 3.10.2, construction and reclamation of the proposed action would employ up to 50 people for one or two construction seasons. An increase in traffic on local roadways before and after construction hours as workers are commuting to and from home may be noticeable but would be minor and short term. Transportation of the precast 80-foot diameter tank to the Rothiemay Tank site would require oversized load permits. This equipment is moved slowly and would not likely contribute to accidents. Transport of tank concrete and pieces may cause minor delays, but impacts are anticipated to be short term, lasting only a few days.
>
> Construction in the vicinity of U.S. Hwy 87 N and the intersection of 4th St. and 15th Ave. in Roundup would last only a few days. Overall, the proposed action would have short-term and negligible to minor effects on motorists at the regional and local scales."

No significant adverse impacts to government services are anticipated.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

The project falls within designated Sage Grouse Core Habitat. The Montana Sage Grouse Oversight Team (MSGOT) has been consulted and provided recommendations for the project. The Central Montana Water Authority has voluntarily committed to the proposed Mitigation Plan provided by MSGOT, including compensatory mitigation.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

No adverse impacts to the recreational value are anticipated.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

The proposal does not include any changes to housing or developments.

No adverse impacts to population or housing are anticipated.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

Excerpt from *Section 3.10.2 Socio-Economic Impact Assessment/Environmental Justice: Proposed Action* in the Musselshell-Judith Rural Water System Phase 2 Environmental Assessment:

> "Completion of the proposed action would provide safe and reliable drinking water to an estimated 1,723 people in the town of Roundup and rural areas of Wheatland, Golden Valley, and Musselshell Counties for a minimum of 50 years. Approximately 2,201 households are within Musselshell County, many of which may experience beneficial impacts on their personal finances. Presently, households spend a portion of their monthly income on water treatment equipment and maintenance of that equipment. Additionally, the poor quality of the water often shortens the lifespan of common appliances such as washing machines, incurring additional maintenance and replacement costs on family budgets. Most families in the region also spend a considerable amount of money on bottled drinking water. It is unclear how much cost savings families would benefit from under the proposed action, but a reduction in household water treatment systems and appliance maintenance and replacement represent a long-term economic benefit."

The proposed projects are not anticipated to have any adverse impacts to the native or traditional lifestyles or communities. In contrast, the proposed projects are anticipated to have a positive impact on the local communities.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

The proposed project will have no effect on any unique quality of the area.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The proposed rural water pipeline would be authorized under a 30-year term easement with a one-time payment of $3185.00.

The proposed access route would be authorized under a 10-year renewable land use license with an annual payment of $200.00.

EA Checklist Prepared By:	Name:	Jocee Hedrick
	Title:	Lewistown Unit Manager
Signature: Jocee Hedrick	Date:	1/16/23

V. FINDING

25. ALTERNATIVE SELECTED:

I have selected the Proposed Alternative B and recommend the DNRC grant the proposed easement and land use license to the Central Montana Regional Water Authority.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I have evaluated the potential environment effects and have determined that no significant adverse environmental impacts will result from the proposed activity.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

EA Checklist Approved By:	Name:	Clive Rooney
	Title:	Northeastern Land Office Area Manager
Signature:	Date:	1/17/23